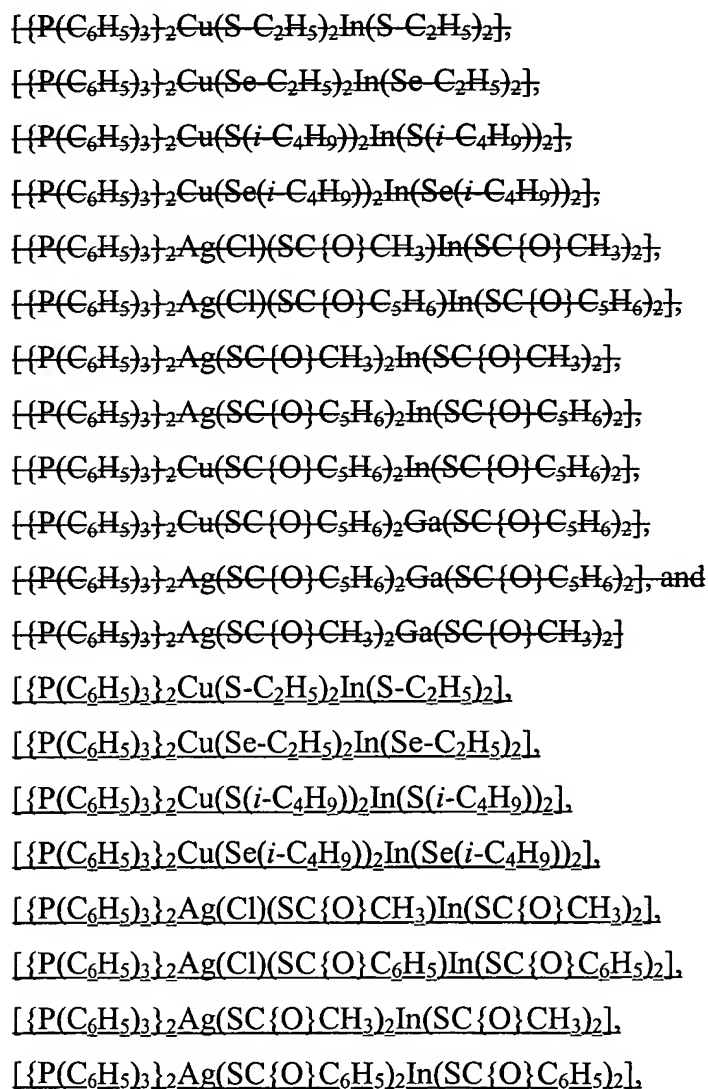
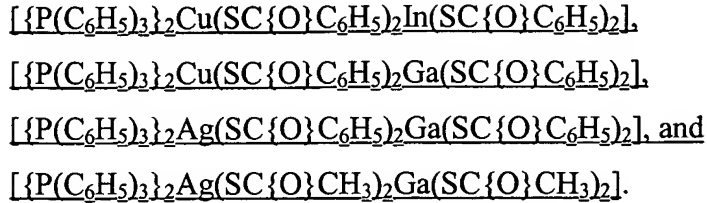


Amendments to the Specification:

Please cancel paragraph [0013], and insert the following replacement paragraph therefor:

A single source precursor for the deposition of ternary chalcopyrite materials is provided. The single source precursor has the empirical formula $[\{L\}_n M'(ER)_x (X)_y (R)_z M'']$, wherein x is 1-4, x+y+z=4, L is a Lewis base that is coordinated to M' via a dative bond, n is greater than or equal to 1, M' is a Group I-B atom, M'' is a Group III-A atom, E is a Group VI-A atom, X is a Group VII-A atom, and each R is individually selected from the group consisting of alkyl, aryl, vinyl, perfluoro alkyl, perfluoro aryl, silane, and carbamato groups. The single source precursor excludes the following

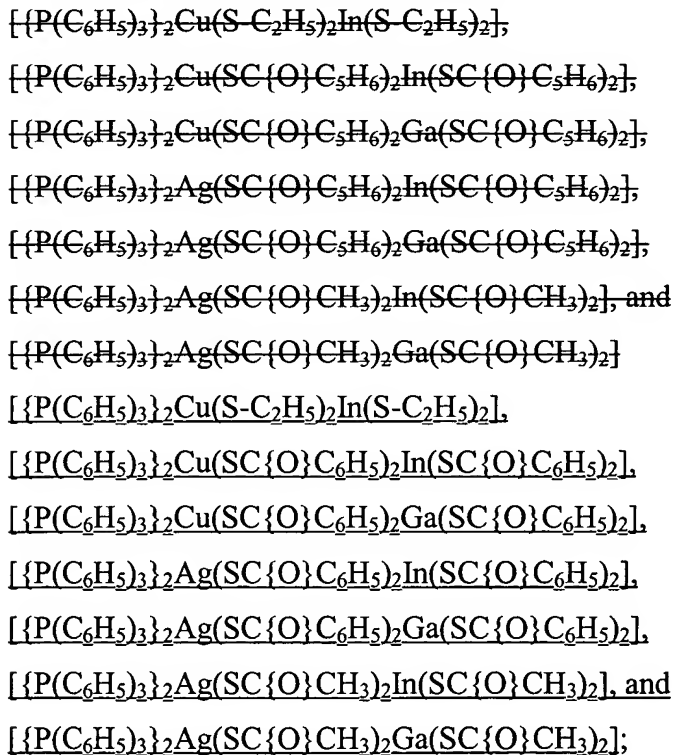




Please cancel paragraph [0015], and insert the following replacement paragraph therefor:

A method of depositing ternary chalcopyrite materials is also provided. The method includes the following steps:

a) providing a single source precursor for said ternary chalcopyrite having the empirical formula $[\{L\}_nM'(ER)_x(X)_y(R)_zM'']$, wherein x is 1-4, $x+y+z=4$, L is a Lewis base that is coordinated to M' via a dative bond, n is greater than or equal to 1, M' is a Group I-B atom, M'' is a Group III-A atom, E is a Group VI-A atom, X is a Group VII-A atom, and each R is individually selected from the group consisting of alkyl, aryl, vinyl, perfluoro alkyl, perfluoro aryl, silane, and carbamato groups, said single source precursor excluding



and

b) depositing the single source precursor on a substrate using a spray CVD technique.

On page 6, just below the section heading "BRIEF DESCRIPTION OF THE DRAWINGS" and above paragraph [0018], please insert the following new paragraph:

The patent or application file contains at least one drawing executed in color. Copies of this patent or patent application publication with color drawing(s) will be provided by the Office upon request and payment of the necessary fee.

Please cancel paragraph [0086], and insert the following replacement paragraph therefor:

By utilizing SSPs according to the invention, ternary I-III-VI₂ chalcopyrites can be provided by a lower temperature, less costly, non-toxic and comparatively simple procedure compared to conventional multi-source techniques. The ternary I-III-VI₂ that can be produced via pyrolysis of one of the invented SSPs, or of a mixture of at least two of the invented SSPs e.g., to yield a semiconductor of the form (Cu:Ag:Au)(Al:In:Ga)(S:Se:Te)₂. In such an SSP, it will be understood by persons of ordinary skill in the art that the ratios of Al:In:Ga and S:Se:Te can each be independently varied such that the overall stoichiometric composition of the semiconductor remains 1:1:2, (or some desirable SSPs, 1:5:8) to produce ternary chalcopyrite semiconducting materials having tunable band gaps between the conduction and valence bands. For example, the ratios could be designed to yield a ternary chalcopyrite material having a band gap of about 1.5 eV (CuInS₂), or about 2-2.4 eV (~~CuGaS~~) (CuGaS₂) (but not limited to such). In another embodiment, ternary semiconductors of the form (Cu:Ag:Au)₁(Al:In:Ga)₁(S:Se:Te)₂ can be prepared from SSPs according to the invention where the ratios of Cu:Ag:Au, Al:In:Ga and S:Se:Te all can be varied or tuned to provide a semiconductor having a tunable band gap, e.g. in the range of from approx 0.5-3.5 eV.